INTERSTATE 580

TRANSPORTATION CONCEPT REPORT

CALTRANS DISTRICT 10
OFFICE OF SYSTEM PLANNING

APPROVAL RECOMMENDED:

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District 10
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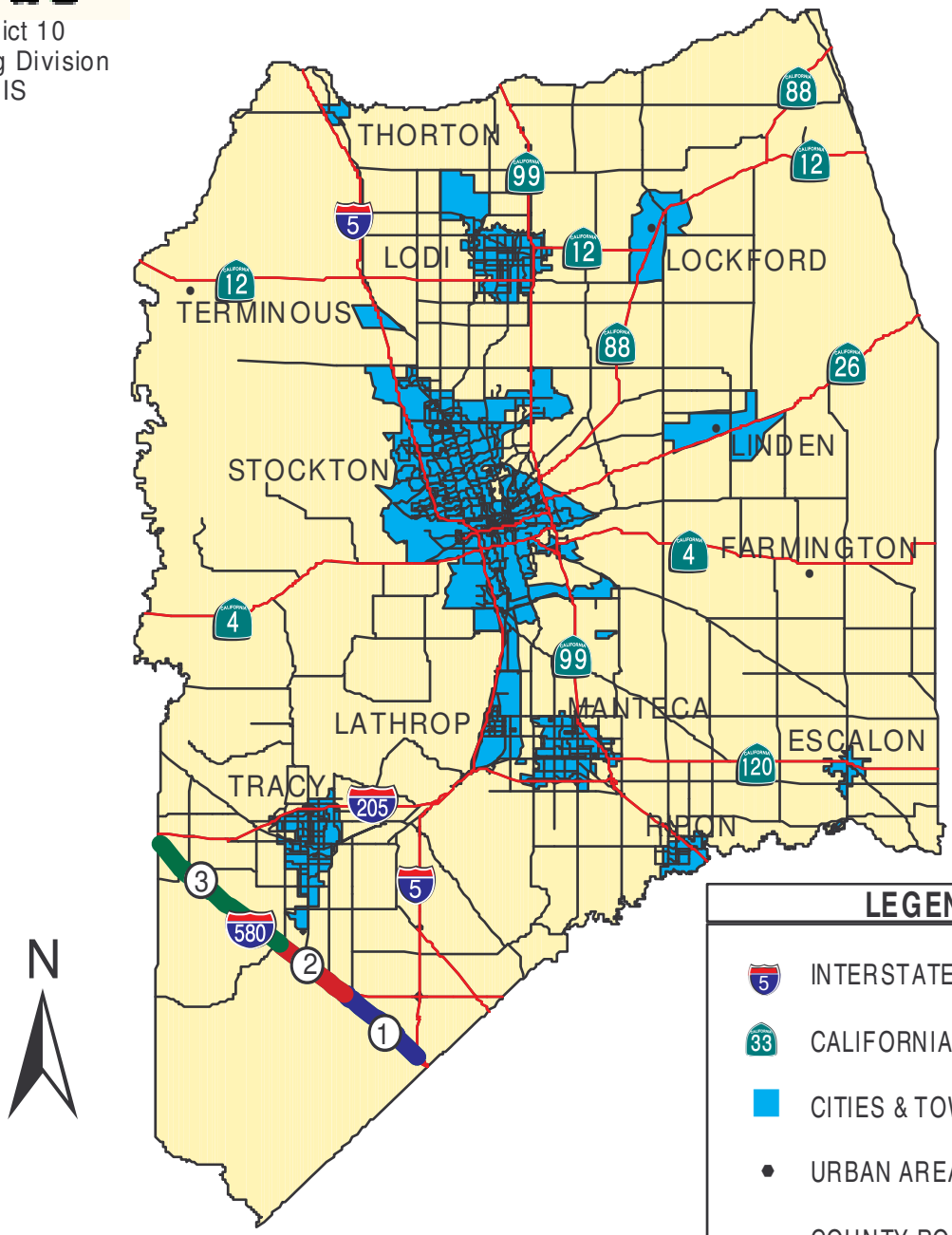


EXECUTIVE SUMMARY

SEG	POST MILE	LOCATION	2000 LOS	CURRENT FACILITY	2020 LOS W/O IMPROVEMENTS	2020 LOS CONCEPT	2020 CONCEPT FACILITY
1	00.00-4.34	I-5 to SR-132	B	4-lane freeway	C	C	4-lane freeway
2	4.34-8.15	SR-132 to Corral Hollow Rd.	C	4-lane freeway	F	C	8-lane freeway
3	8.15-15.34	Corral Hollow Rd. to Alameda Co. Ln.	C	4-lane freeway	F	C	8-lane freeway

Transportation Concept Report
Interstate 580

STATEMENT OF PLANNING INTENT

System planning is Caltrans' long-range transportation planning process used to identify and prioritize future transportation improvements in cooperation with its planning partners. System planning facilitates the efficient, economical, and intermodal movement of people, goods, and information. It is part of the continuing, cooperative, and comprehensive transportation planning process. System planning strives for interregional and statewide continuity of the State's transportation network.

PURPOSE OF THE TRANSPORTATION CONCEPT REPORT

The Transportation Concept Report (TCR) is a system planning document and tool which includes an analysis of a transportation corridor. It establishes a 20-year concept that is consistent with the District's goals as set forth in the District System Management Plan. The TCR establishes the future concept of Level of Service (LOS) for segments along the route and broadly identifies the nature and extent of the improvements needed to attain that Level of Service. Operating conditions for each corridor are projected for 10-year and-20-year horizons. Beyond the 20-year planning period, the TCR identifies the Ultimate Transportation Corridor (UTC) to ensure that adequate right-of-way is preserved for future ultimate facility projects.

The TCR identifies future deficiencies and potential improvements. The Transportation System Development Plan (TSDP) incorporates these improvements and identifies potential funding sources.

This report is prepared by Caltrans staff in cooperation with the regional and local agencies which have jurisdiction within this corridor. The objective of the TCR is to have local, regional, and state consensus on route or corridor concepts, improvement priorities, and planning strategies. This document provides concept information only and does not determine policy.

The TCR will be updated as needed, as conditions change, or as new information is obtained.

ROUTE DESCRIPTION

Interstate 580 (I-580) begins at its junction with I-5 in San Joaquin County and ends at its junction with SR-101 in Marin County. It crosses the southwestern portion of San Joaquin County, south of Tracy. It is a major interregional connector between the northern San Joaquin Valley and the northern Bay Area.

Route Designations

I-580 is included in the California Freeway and Expressway System. It is also included in the National Networks for STAA trucks.

Projects to build new highways or add capacity to existing highways are funded through the State Transportation Improvements Program (STIP). Legislation approved in 1998 (Senate Bill 45) specifies that Regional Transportation Planning Agencies such as the San Joaquin Council of Governments (SJCOG), will have decision-making authority over 75% of STIP funds, while the State makes funding decisions for the remaining 25% of the funds. This legislation further specified that the State's 25% share could only be used on State highways which are part of the Interregional Road System (IRRS).
Interstate I-580 is designated as an IRRS route; therefore, it is eligible for funding considerations as part of the State's 25% share of STIP funds.

I-580 is an officially designated scenic highway in San Joaquin County. Many state highways are located in areas of outstanding natural beauty. The California Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from changes, which would diminish the aesthetic value of lands adjacent to highways.

Purpose of Route

I-580 is functionally classified as a Principal Arterial-Interstate. It crosses a rural area south of Tracy. It is a major branch connector between two interstate freeways, I-5 and I-205. It is also a critical interregional route connecting the northern San Joaquin Valley with the Bay Area.

ROUTE CONCEPT / SUMMARY / RATIONALE / CONSIDERATIONS

The route concept is comprised of two factors:

1) The minimum LOS tolerable for peak hour conditions
2) The type of facility necessary to provide the concept LOS

(Refer to Appendix 2 for the designation of LOS levels.)

Interstate 580 Concept

Our concept Level of Service for our 20-year planning horizon is LOS "C." The Ultimate Transportation Corridor (UTC) is an 8-lanes freeway. Our concept facility needed to meet our concept LOS is described below by segment.

Segment 1
Our concept facility for Segment 1 (PM 0.00-4.34) is a 4-lane freeway.

Segment 2
Our concept facility for Segment 2 (PM 4.34-8.15) is an 8-lane freeway. The freeway to freeway connection with SR-132 at I-580 PM 4.34 should be modified as ADT increases at the ramps. SR-132 connection with I-580 should be adequate for the projected volume.

Segment 3
Our concept facility for Segment 3 (PM 8.15-15.34) is an 8-lane freeway.

Consideration should be given for possible reversible highway lanes due to the directional split of 70/30 during peak hour. A directional split would be an innovative technique to better meet our concept facility LOS within or beyond our 20-year-planning horizon. Also, The Metropolitan Transportation Commission (MTC) fully supports strategies to increase regional transit rideship along congested corridor.

Safety

Included on the Fact Sheet for each segment is the Traffic Collision rate for that stretch of roadway. This rate indicates the number of accidents per million vehicle miles traveled based on the latest three years of data. Below is the summary for the entire length within San Joaquin County.

Traffic Collision Rate (per million vehicle miles traveled)
SR-580, PM 0.00-15.34

Actual Accident Rate		**Statewide Average Rate**	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.23	0.47	0.21	0.48

Source: TASAS Database (October 1, 1997 - August 31, 2000)

Operations

The State Highway Operations and Protection Program (SHOPP) requires Caltrans to prepare a highway operations and protection program to preserve and protect the state highway system. SHOPP improvements are limited to maintenance, safety, and

operational improvements that do not add capacity to the system. Funding for these operational improvements compete on a statewide basis.

Trucks

The average daily truck traffic volume on I-580 is 17% of the Average Daily Traffic (ADT). The majority of the truck traffic is the movement of goods and "farm-to-market" crops and usually occurs during the middle of the day.

RIGHT OF WAY ISSUES AND ENVIROMENTAL CONDITIONS

The state right-of-way width along the route ranges between 200 to 300 feet. The median width is approximately 84 feet.

Our concept facility for the 20-year horizon should not require the acquisition of new right-of-way. An 8-lane freeway facility requires at least 194 feet of right-of-way, (96 feet mainline, 22 feet median, 16 feet shoulders and 60 feet-clearance). However, it may require acquisition of right-of-way to meet our UTC of an 8-lane freeway facility.

AIR QUALITY

Interstate 580 is located in the San Joaquin Valley Air Basin, which is defined by mountain and foothill ranges to the east and west. This area has been designated as a severe non-attainment area for ozone, serious non-attainment for particulate matter (PM-10), and as a maintenance area for carbon monoxide (CO). State and federal laws require that all state and regional transportation plans include conformity with the EPA's adopted State Implementation Plan (SIP) for air quality. Compliance with the conformity rule, mandates that adjacent non-attainment areas work together towards practical attainment strategies, such as the cooperation among the eight local transportation planning agencies (TPAs) within the San Joaquin Valley, Caltrans and the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD).

Emissions from vehicles, especially trucks, have an adverse affect on air quality in this corridor. Slower speeds of heavy trucks result not only in air pollution but also in a reduced level of service.

Due to Valley-wide non-attainment, the eight Transportation Planning Agencies (three agencies in District 10) approved and signed a Memorandum of Understanding (MOU) in September 1992 to develop a comprehensive planning process. This planning body developed another MOU with the SJVUAPCD. The major focus of this comprehensive, planning agreements was to reduce emissions through:

- Development and analysis of transportation control measures that each county could reasonably implement.

- Identification of effective transportation models that would generate a consistent analysis and reporting base.
- Satisfaction of conformity requirements for State and federal funds, especially the Transportation Equity Act for the 21st Century (TEA-21) funds.

The participation of the Valley counties in the MOU is reflected in the updated 1998 San Joaquin County Regional Transportation Plan (RTP) submitted for the 1998 STIP funding cycle. The RTP identifies projects aimed not only at road improvements, but also at transit projects focussed on reducing single-passenger vehicle trips as well as bicycle paths to make room for non-emission travel.

The 1990 Federal Clean Air Act Amendments (CAAA), promulgated November 15, 1990, placed new requirements on sources and causes of air pollution in areas (including San Joaquin Valley) failing to meet federal air quality standards. The CAAA included more stringent requirements for demonstrating Air Quality conformity in transportation plans and projects, per the conformity provisions in Section 176(a). On November 15, 1993, the Environmental Protection Agency (EPA) published conformity rules delineating specific criteria and procedures for fulfilling the conformity requirements of the CAAA. This rule, effective September 15, 1997, is updated and published in the Federal Register August 15, 1997.

ALTERNATIVE TRANSPORTATION

Fixed Route Transit and Demand Response Service

The Stockton Metropolitan Area Rapid Transit (SMART) provides public transit service in San Joaquin County and selected employment locations in the Bay Area. Also, Greyhound provides inter-city bus service with a depot in Stockton and stops in Tracy and Manteca.

Rail

There are two train services connecting the northern Central Valley with the Bay Area, the Altamont Commuter Express (ACE) and Amtrak. ACE offers transportation between Stockton and San Jose, with stations in Lathrop/Manteca, Tracy, Livermore, Pleasanton, Fremont and Santa Clara. The Amtrak "San Joaquins" offer trains connecting Oakland to Stockton. Amtrak also provides feeder bus service connecting the cities of Stockton to San Jose, via Tracy.

Airports

The Stockton Metropolitan Airport currently has a commercial service, America West Airlines, which provides service to Phoenix three times a day. The airport does not provide commercial service to the Bay Area.

The Modesto City-County Airport provides the only commercial service with daily scheduled commuter flights to San Francisco. The facility primarily serves small, single engine aircraft.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Non-recurring congestion and delays are attributed to unplanned incidents such as traffic accidents, stalled vehicles, or special events. This non-recurring congestion may be reduced by improving incident management and reducing the number of incidents through an ITS. ITS is designated to identify non-recurring incidents and remove them from the highway as quickly and efficiently as possible. ITS also provides benefits for traveler information and congestion management through changeable message signs, ramp metering, and automated warning systems.

District 10 has embarked on a program of advanced technology to meet our present and future traffic demands. The 10-year Transportation Management System Plan proposed ITS Connectors along the I-580 corridor, such as Automated Warning System, Changeable Message Signs and Weather Conditions detectors (District 10 Long Range Operational Plan 1999).

A San Joaquin Valley ITS Strategic Deployment Plan has recently been completed for the eight Valley counties of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. The Plan includes recommendations for Valley-wide and interjurisdictional initiatives to address problems that affect the entire region, as well as recommendations for projects that will address specific local problems throughout the Valley. The San Joaquin Valley ITS Strategic Deployment Plan is intended to provide a starting point for regional ITS coordination, programming, and implementation efforts over the next twenty years.

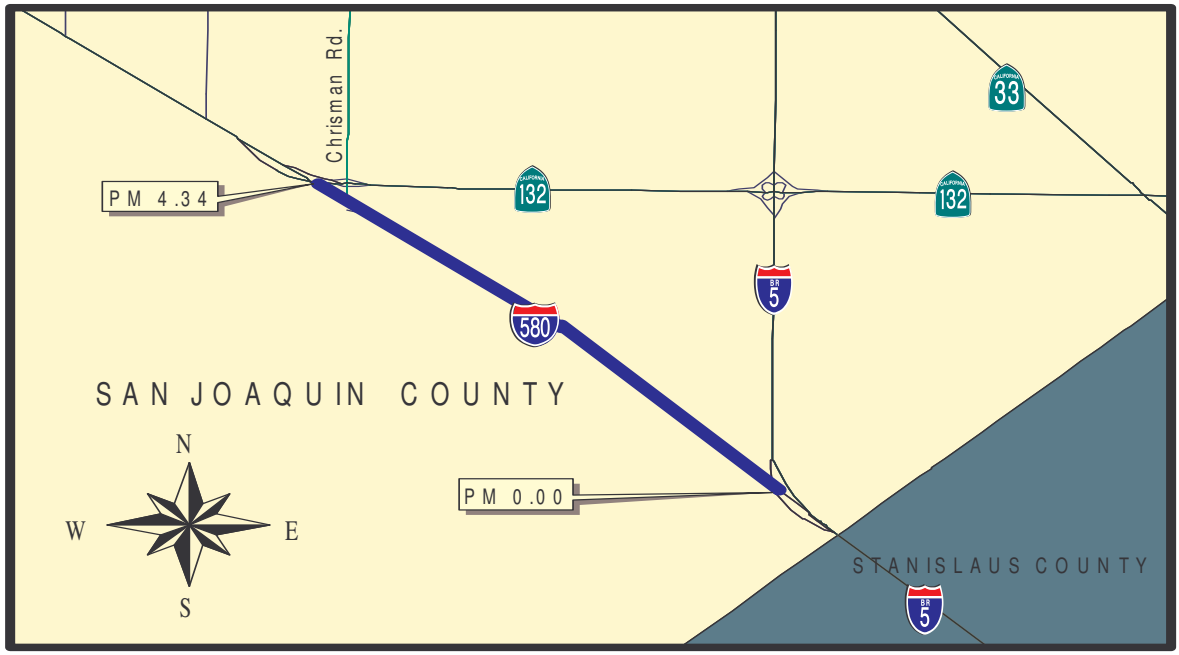
Planned Projects

San Joaquin	Planned Projects for I-580	Source
PM 4.3-13.5	Widen to 6 lanes from SR-132 to Patterson Pass Rd.	ITSP & 2001 RTP Tier 2
PM 8.14	Second bridge and widen ramps at Corral Hollow Rd.	2001 RTP Tier 2
PM 4.3-13.5	Widen to 6 lanes from SR-132 to Patterson Pass Rd.	ITSP & 2001 RTP
PM 13.5	New overcrossing and ramp widening at Patterson Pass Rd.	2001 RTP Tier 2
PM 13.5-15.3	Widen to 6 lanes from Mountain House Parkway to Alameda Co. Ln. (only a phase of the project).	ITSP & 2001RTP Tier 1 & Tier 2
At Lammers	Construct new Interchange I-580 at Lammers	2001 RTP Tier 2

I-580: SAN JOAQUIN COUNTY - SEGMENT 1
FACT SHEET

Location: I-5 to SR-132
Post Mile: PM-00.00-4.34
Kilometer Post: KP-0.00-6.98
Length: 4.34 miles/6.98 kilometers

Functional Classification: Principal Arterial
Rural/Urban/Urbanized: Rural
Within City Limits: No
Terrain: Flat



Traffic Forecast Data
4-Lane Freeway
Average Highway Speed 70 mph

	2000 Existing 4-Lane Freeway	2010 w/o Improvement	2020 w/o Improvements
LOS	B	C	C
V/C	0.35	0.61	0.74
ADT	19,100	33,000	40,000
Peak Hour Volume	2,000	3,500	4,200
Peak Hour Dir. Split	70/30	70/30	70/30
% Trucks	16%	16%	16%

Concept Facility (2020) 4-lane freeway; LOS C

Ultimate Transportation Corridor 8-lane freeway

Local Planning Jurisdiction San Joaquin County Council of Governments (SJCOG)

System Designations

Yes	Freeway/Expressway System
Yes	National Highway System (NHS)
Yes	Interregional Road System (IRRS)
Yes	High Emphasis Route
No	Focus Route
Yes	Strategic Highway Network (STRAHNET)
Yes	National Network for STAA Trucks
Yes	Scenic Highway

Right of Way/Shoulder Information

Right-of-way ranges from 200 to 300 feet. The total outside treated shoulder width is 10 feet on each side of the roadway.

Air Quality/Environmental Status

Air Quality	Ozone Particular Matter Carbon Monoxide	Non-Attainment Non-Attainment Maintenance
Flood Plain	None	Non-flood hazard
Wetlands	Yes	Low sensitivity
Endangered species	High sensitivity	Species of concern: high sensitivity
Archaeological	Medium sensitivity	Possible buried deposits, canals

Please refer to Appendix 4 for a description of Flood Plains, Wetlands, and Special Status Species

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		**Statewide Average Rate**	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.29	0.57	0.14	0.47

Source: TASAS Database (January 1, 1999 - December 31, 2001)

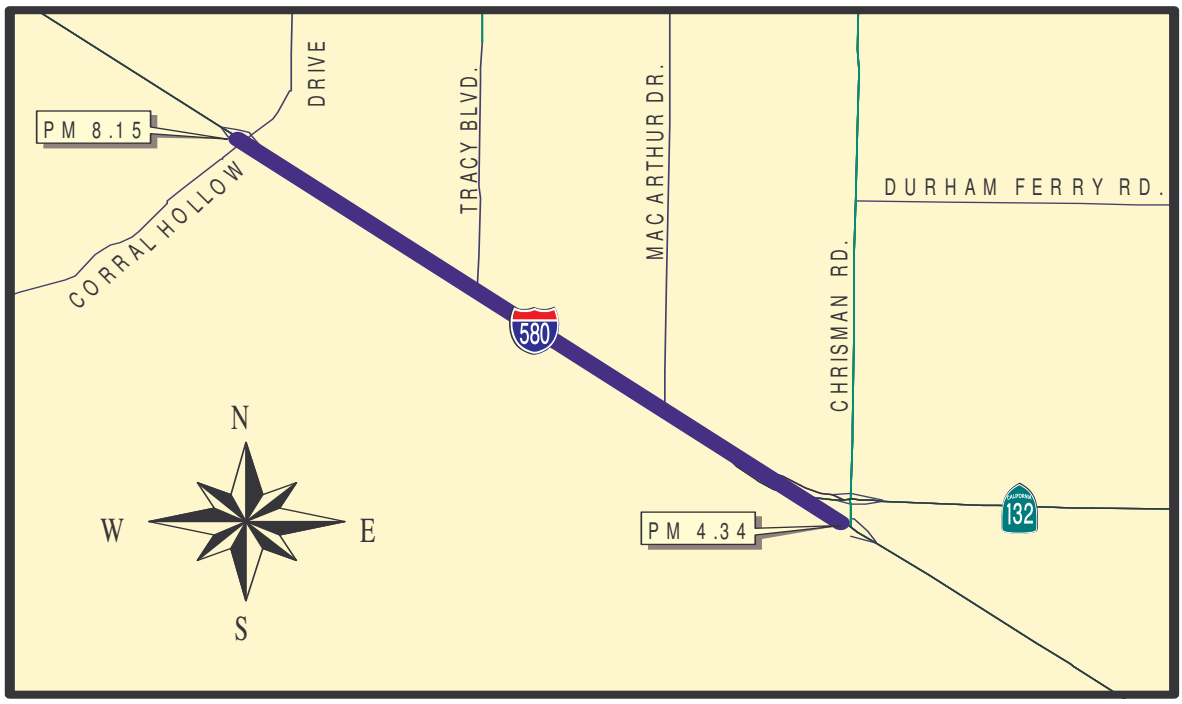
Proposed ITS project

PM 0.00-15.34 ITS Connectors.

I-580: SAN JOAQUIN COUNTY - SEGMENT 2
FACT SHEET

Location: SR-132 to Corral Hollow Rd
Post Mile: PM-4.34-8.15
Kilometer Post: KP-6.98-13.12
Length: 3.81 miles/6.14 kilometers

Functional Classification: Principal Arterial
Rural/Urban/Urbanized: Rural
Within City Limits: No
Terrain: Rolling



Traffic Forecast Data
4-Lane freeway
Average Highway Speed 70 mph

	2000 Existing 4-Lane Freeway	2010 w/o Improvement	2020 w/o Improvements
LOS	C	F	F
V/C	0.58	1.1	1.19
ADT	32,500	56,000	67,000
Peak Hour Volume	3,400	5,800	6,900
Peak Hour Dir. Split	70/30	70/30	70/30
% Trucks	12%	12%	12%

Concept Facility (2020) 8-lane freeway; LOS C

Ultimate Transportation Concept 8-lane freeway

Local Planning Jurisdiction San Joaquin County Council of Governments (SJCOG)

Planned Projects

PM 4.3-13.5 widen to 6 lanes from SR-132 to Patterson Pass Rd., ITSP & 2001 RTP.
PM 8.14 Second bridge and widen ramps at Corral Hollow Rd. 2001 RTP Tier 2.

System Designations

Yes	Freeway/Expressway System
Yes	National Highway System (NHS)
Yes	Interregional Road System (IRRS)
Yes	High Emphasis Route
No	Focus Route
Yes	Strategic Highway Network (STRAHNET)
Yes	National Network for STAA Trucks
Yes	Scenic Highway

Right of Way/Shoulder Information

Right-of-way ranges from 240 to 260 feet. The total outside treated shoulder width is 10 feet on each side of the roadway.

Air Quality/Environmental Status

Air Quality	Ozone Particular Matter Carbon Monoxide	Non-Attainment Non-Attainment Maintenance
Flood Plain	No	Non-flood hazard
Wetlands	Yes	Within 100 year/500 year flood plains
Endangered species	High sensitivity	Species of concern: high sensitivity
Archaeological	Medium sensitivity	Possible buried deposits, canals

Please refer to Appendix 4 for a description of Flood Plains, Wetlands, and Special Status Species

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		**Statewide Average Rate**	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.28	0.52	0.22	0.51

Source: TASAS Database (January 1, 1999 - December 31, 2001)

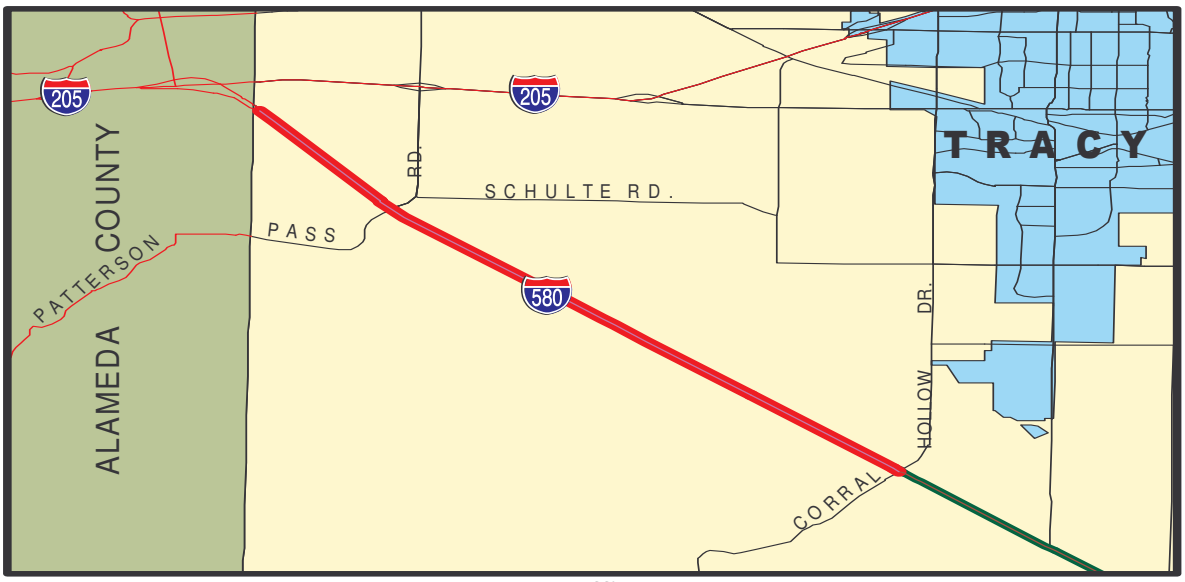
Proposed ITS project

PM 0.00-15.34 ITS Connectors.

I-580: SAN JOAQUIN COUNTY - SEGMENT 3
FACT SHEET

Location: Corral Hollow to Ala Co. Ln.
Post Mile: PM-8.15-15.34
Kilometer Post: KP-13.12-24.68
Length: 7.19 miles/11.56 kilometers

Functional Classification: Principal Arterial
Rural/Urban/Urbanized: Rural
Within City Limits: No
Terrain: Rolling



Traffic Forecast Data
4-Lane freeway
Average Highway Speed 70 mph

	2000 Existing 4-Lane Freeway	2010 w/o Improvement	2020 w/o Improvements
LOS	C	F	F
V/C	0.56	1.11	1.34
ADT	28,500	56,500	70,000
Peak Hour Volume	2,900	5,800	7,000
Peak Hour Dir. Split	70/30	70/30	70/30
% Trucks	12%	12%	12%

Concept Facility (2020) — 8-lane freeway; LOS C

Ultimate Transportation Corridor — 8-lane freeway

Local Planning Jurisdiction — San Joaquin Council of Governments (SJCOG)

Programmed Project

I-205 PM 0.0-1.8, I-205/580 Ultimate Truck Bypass

Planned Projects

PM 13.5-15.3 widen to 6 lanes from Mountain House Parkway to Alameda Co. Ln., ITSP & 2001 RTP Tier 1 & Tier 2 (only a phase of the project).
PM 4.3-13.5 widen to 6 lanes from SR-132 to Patterson Pass Rd., ITSP & 2001 RTP Tier 2.
PM13.5 new overcrossing and ramp widening at Patterson Pass Road, 2001 RTP Tier 2.
PM 8.15 second bridge and widen ramps at Corral Hollow Rd., 2001 RTP Tier 2.
I-580 at Lammers Construct New Interchange, 2001 RTP RTP Tier 2.

System Designations

Yes	Freeway/Expressway System
Yes	National Highway System (NHS)
Yes	Interregional Road System (IRRS)
Yes	High Emphasis Route
No	Focus Route
Yes	Strategic Highway Network (STRAHNET)
Yes	National Network for STAA Trucks
Yes	Scenic Highway

Right of Way/Shoulder Information

Right-of-way ranges from 230 to 260 feet. The total outside treated shoulder width is 10 feet on each side of the roadway.

Air Quality/Environmental Status

Air Quality	Ozone Particular Matter Carbon Monoxide	Non-Attainment Non-Attainment Maintenance
Flood Plain	None	Non-flood hazard
Wetlands	Yes	Low sensitivity
Endangered species	High sensitivity	Species of concern: high sensitivity
Archaeological	Medium sensitivity	Canals

Please refer to Appendix 4 for a description of Flood Plains, Wetlands, and Special Status Species

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		**Statewide Average Rate**	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.16	0.41	0.19	0.46

Source: TASAS Database (January 1, 1999 - December 31, 2001)

Proposed ITS project

PM 0.00-15.34 ITS Connectors.

Appendix 1

LIST OF SYSTEM PLANNING ACRONYMS

AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
AHS	Automated Highway System
ATIS	Advance Transportation Information System
ATSD	Advanced Transportation System Development
AVI	Automated Vehicle Identification
BN&SF	Burlington Northern & Santa Fe
CBD	Central Business District
CCAA	California Clean Air Act
CMAQ	Congestion Mitigation Air Quality
CMP	Congestion Management Plan
CO	Carbon Monoxide
CTIS	California Transportation Investment Strategy
CTC	California Transportation Commission
DSMP	District System Management Plan
EPA	Environmental Protection Agency
ETTM	Electronic Toll Collection and Traffic Management
F&E	Freeway and Expressway System
FAT	Fatalities
FEMA	Federal Emergency Management Administration
FIS	Federal Inspection Facility
FY	Fiscal Year
HOV	High Occupancy Vehicle
ICES	Intermodal Corridors of Economic Significance
IIP	Interregional Improvement Plan
IRRS	Interregional Road System
ISTEA	Intermodal Surface Transportation Efficiency Act
ITMS	Intermodal Transportation Management System
ITS	Intelligent Transportation System
ITSP	Interregional Transportation Strategic Plan
LOS	Level of Service
LROP	Long Range Operations Plan
LRT	Light Rail Transit
MCAG	Merced County Association of Governments
MIS	Major Investment Study
MOU	Memorandum of Understanding
MSL	Maintenance Service Level
MTC	Metropolitan Transportation Commission
NAFTA	North American Free Trade Agreement
NHS	National Highway System
PHV	Peak Hour Volume

PM	Post Mile
PM-10	Particular Matter
PR	Project Report
PSR	Project Study Report
PTOC	Primary Traffic Operations Center
POE	Port of Entry
RAQS	Regional Air Quality Strategy
RAS	Regional Arterial System
RCR	Route Concept Report
RIP	Regional Improvement Plan
RTP	Regional Transportation Plan
R/W	Right of Way
StanCOG	Stanislaus Council of Governments
SHOPP	State Highway Operations and Protection Program
STRAHNET	Strategic Highway Network
SIP	State Implementation Plan
SJCOG	San Joaquin Council of Governments
SJVUAPCD	San Joaquin Valley Unified Air Pollution Control District
SOV	Single Occupancy Vehicle
SPRR	Southern Pacific Rail-Road
SR	State Route
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
TASAS	Traffic Accident Surveillance Analyst System
TCM	Transportation Control Measure
TCR	Transportation Concept Report
TCRP	Traffic Congestion Relief Program
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act of the 21st Century
TSDP	Transportation System Development Plan
TMA	Transportation Management Association/Area
TMC	Transportation Management Center
TSM	Transportation System Management
UPRR	Union Pacific Rail-Road
UTC	Ultimate Transportation Corridor
V/C	Volume to Capacity
VMT	Vehicles Miles Traveled

Appendix 2

LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service Criteria for Basic Freeway Sections

From the 1995 Highway Capacity Manual

Maximum Volume to Capacity (V/C) Values
For Basic Freeway Sections

	70 MPH		65 MPH	
	4 lanes	6 lanes	4 lanes	6 lanes
A	.318	.304	.295	.283
B	.509	.487	.473	.452
C	.747	.715	.704	.673
D	.916	.876	.887	.849
E	1	1	1	1
F	varies	varies	varies	varies

The Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:

LOS A describes free-flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.

LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F represents a breakdown or forced flow. It usually occurs at a point on a planned facility when forecast demand exceeds computed capacity.

Appendix 3

Rural, Urban, and Urbanized Definitions

The rural, urban, and urbanized area limits are based upon population density as determined by the U.S. Census Bureau. The criteria are:

Rural – Under 5,000 population

Urban – 5,000 to 49,999 population.

Urbanized – over 50,000 population

Appendix 4

Special Status Species

Flood Plains: Flood data from FEMA Digital Q3 Data Mapping and identification whether or not areas are within 100 or 500 year floodplain.

Wetlands: Jurisdictional Waters, including wetlands, are described as those that are under federal and/or state regulatory authority. Waters of the U.S. include essentially all surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries all wetlands adjacent to these waters, and all impoundments of these waters. Wetland data obtained from the U.S. Fish and Wildlife Service National Wetland Inventory Mapping, previous survey data, or other in office sources. Army Corps of Engineer and EPA definition of wetlands are: those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Special Status Species: Species that are legally protected under federal and state Endangered Species Acts or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing.

- Species listed or proposed for listing as threatened or endangered under the federal or state Endangered Species Act (50 CFR 17.12 and 14 CCR 670.5);
- Species that are federal candidates for possible future listing under the federal Endangered Species Act;
- Species listed as Federal Species of Concern;
- Species that meet the definition or are endangered under the California Environmental Quality Act (CEQA), State CEQA guidelines, section 12380.
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq).
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California (Lists 1A and 2 in Skinner and Pavlik 1994)."
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik 1994), which may be included on the basis of local significance or recent biological information;
- A Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service Sensitive Species.